

anti-CD158 anti-CD158 anti-CD158 anti-CD16 anti-CD3

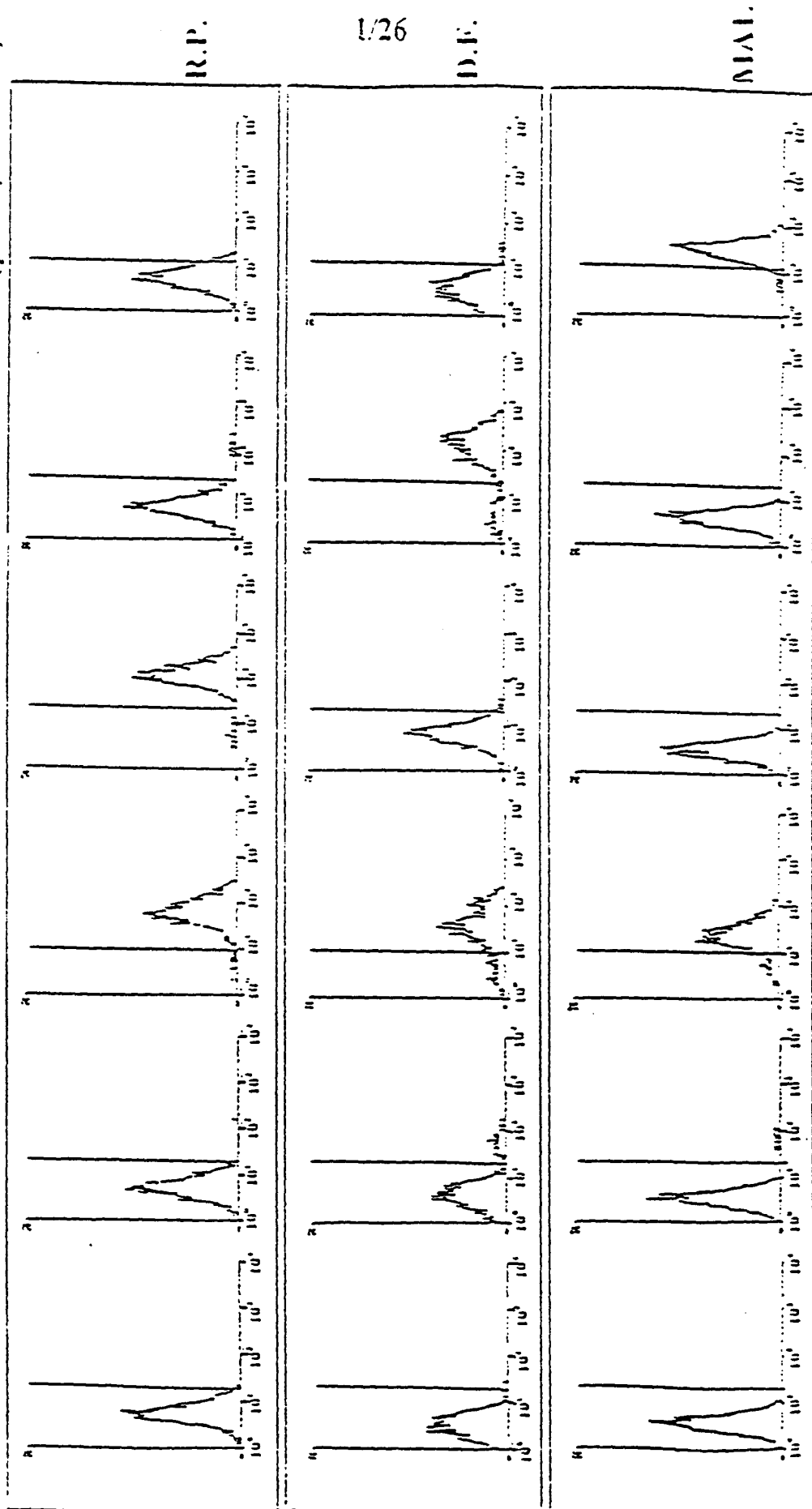


Figure 1A

Figure 1B

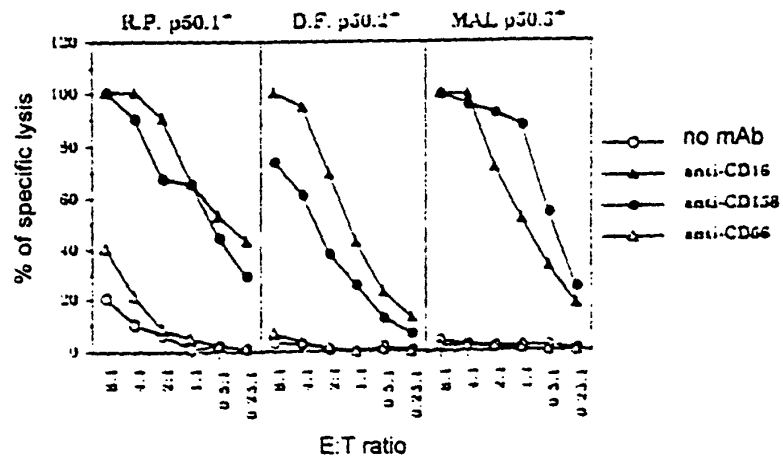


Figure 2A

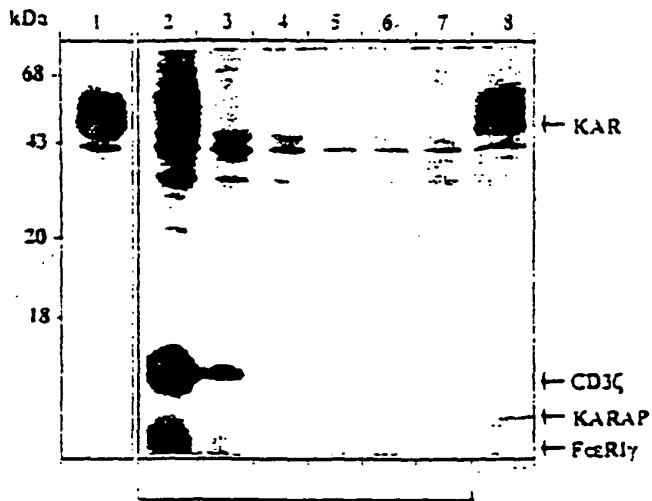
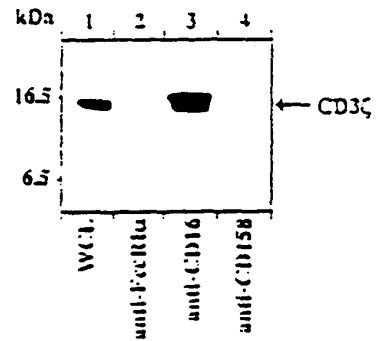


Figure 2B



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Figure 3A

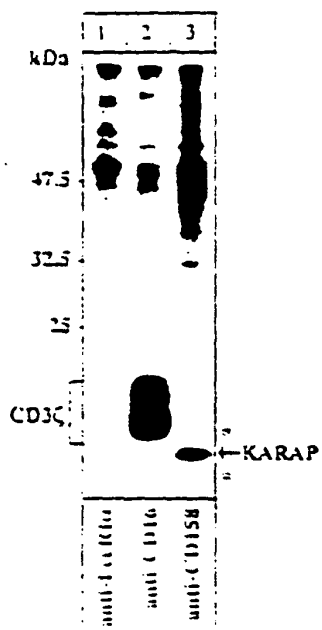


Figure 3B

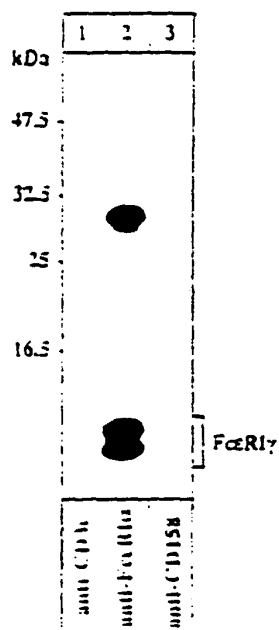
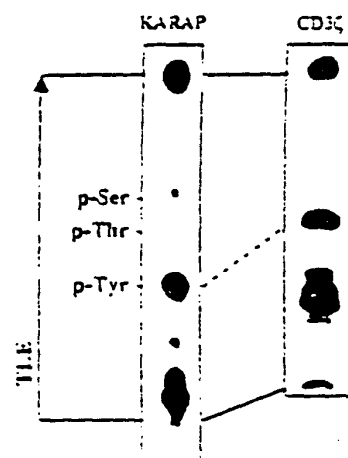
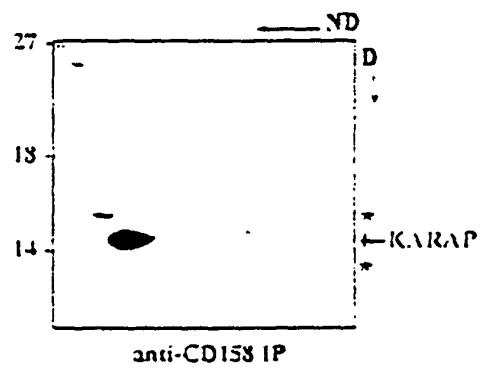


Figure 3C



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Figure 4

NK p58/50 cell receptors for class I MHC molecules

Figure 6

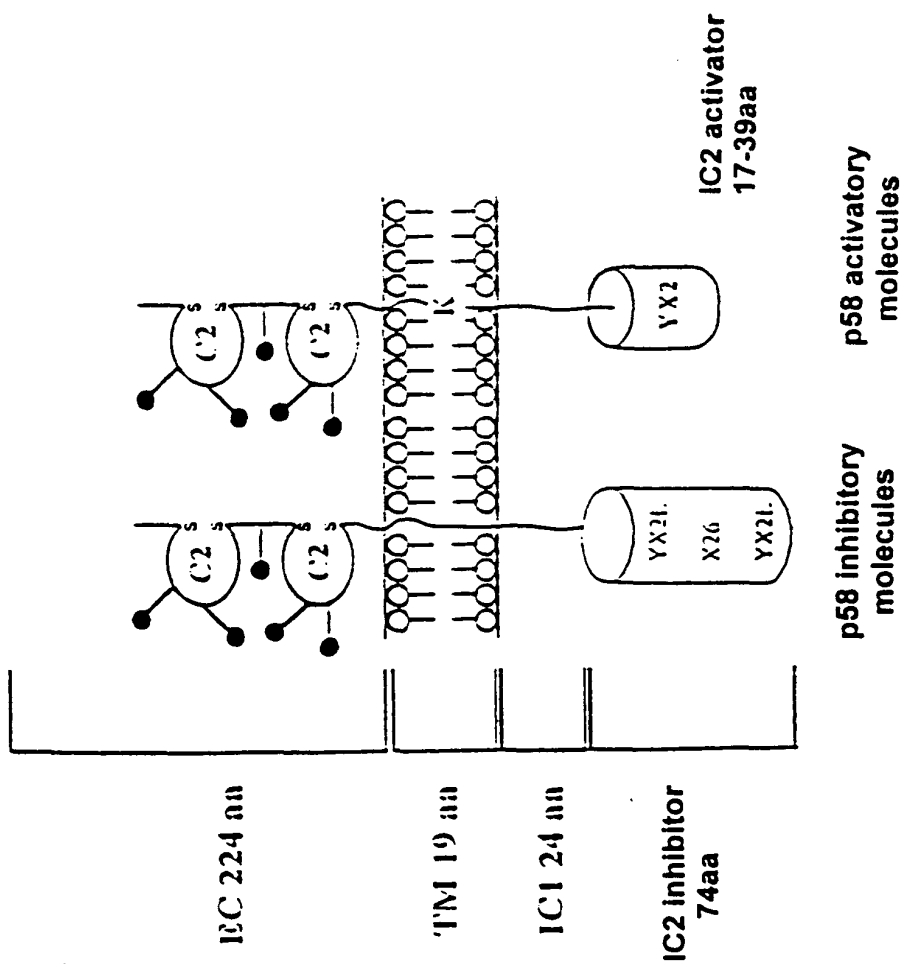


Figure 7

1 ggtagacaca ggtacacaca ggcctgggac tgggtgtac agtgcatatc tggcacaca
 61 ggggctcgg agcctcggg tgcctcgt tctctcgt cctcctgact gtgggaggat
 121 taagtccctg acaggcccaag agtgacac tcccaagatg cgaatgtct tccgtgagcc
 181 cgggtgtac gtctgggatt gttctggcg acctgggtg gactctctg attgccctg
 241 cgtgtactc tctggccgc cgtgtccc gaggtaagg gacagcggaa gggacctgga
 301 aacacacac tctgagact ggtctgct atcaggagc tccgggtcag agacatgag
 361 tctcagtg aacacacac cagaggcaat attcagatg agccacctc atgccatca
 421 gggcctgat gcccggatc ggtctccc gatgctact caacaagccc tctcgagat
 481 caggatccc ctggaatac agatcacag ggtactc

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0 5 0 7 7 9 8 6 0 0 0 0 0 0 0 0 0 0

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31/31

200 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
 2 V 2 G 2 L V 2 T 2 2 2 A 2 A V Y S 2 2

121/42

22/51

0000
 0 1 2 3 4 5 6 7 8 9 A B C D E F 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

232/52

22472

[illegible]

242/32

202 020 200 022 020 020 203

1 2 3 4 5 6 7

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Figure 3

| ITAM polypeptides | |
|------------------------------|---------------------------------------|
| $\alpha\beta\zeta_1$ | YneInIqtrre-YdvL |
| $\alpha\beta\zeta_2$ | YneIqkkmaseaYsaI |
| $\alpha\beta\zeta_3$ | YqgIsatkat-YdaI |
| $\alpha\beta\gamma$ | YqgIkorecdq-YshL |
| $\alpha\beta\delta$ | YqgIrrrdcaq-YshL |
| $\alpha\beta\epsilon$ | YqgIrkgqrul-YsqI |
| Ig α ($\alpha 79a$) | YedIsqleggt-YqcV |
| Ig β ($\alpha 79b$) | YqgIdlsqrat-YedI |
| F $\alpha\beta\gamma$ | YqgIdcraqat-YedI |
| F $\alpha\beta\delta$ | YeeInIysat--YsaI |
| F $\alpha\beta\epsilon$ | YqaLggqrner-YsdI |
| Consensus | Y--L-----Y--L : : |

Figure 10A

SEQ ID n°6

| 10 | 20 | 30 | 40 | 50 | |
|--------------|--------------|--------------|--------------|--------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| TGCGACGAGG | TGCGACGAGG | CGCTGCGAGG | TGCTGTGCGAGG | TGCGACGAGG | 50 |
| GCGACGAGG | GCGACGAGG | CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | 100 |
| TGCTGTGCGAGG | GCGACGAGG | AGCTGCGAGG | AGCTGCGAGG | TGCTGTGCGAGG | 150 |
| CGCTGCGAGG | AGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | 200 |
| TGCTGTGCGAGG | TGCTGTGCGAGG | CGCTGCGAGG | TGCTGTGCGAGG | CGCTGCGAGG | 250 |
| TGCTGTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | 300 |
| CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | AGCTGCGAGG | 350 |
| AGCTGCGAGG | TGCTGTGCGAGG | TGCTGTGCGAGG | CGCTGCGAGG | TGCTGTGCGAGG | 400 |
| CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | CGCTGCGAGG | TGCTGTGCGAGG | 450 |
| TGCTGTGCGAGG | AGCTGCGAGG | TGCTGTGCGAGG | CGCTGCGAGG | TGCTGTGCGAGG | 500 |
| AGCTGCGAGG | TGCTGTGCGAGG | | | | 510 |

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| SHYVFPFPE | WQVFPFPE | GSGSWWLF | LPVFPFPE | SPVFPFPE | 50 |
| FPVFPFPE | GVSFPFPE | WVFPFPE | VVSFPFPE | GVSFPFPE | 100 |
| QVFPFPE | QVFPFPE | VVFPFPE | VVFPFPE | GVSFPFPE | 150 |
| QVFPFPE | GVSFPFPE | | | | 170 |

Figure 10B

SEQ ID n°11

Figure 11A

SEQ ID n°7

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| GTGCTCTTT | GGGACCGTG | GGGGCTGCG | AGCGTCGTC | GTGCGTCGCG | 50 |
| TTCCTTCGCG | TGCTTCGTC | TGCTGCGTC | TTCCTTCGCG | TTCCTTCGCG | 100 |
| GTGCTCTTT | TTCCTTCGCG | GGGACCGTG | TTCCTTCGCG | GTGCTCTTT | 150 |
| TTCCTTCGCG | TTCCTTCGCG | GTGCTCTTT | TTCCTTCGCG | GTGCTCTTT | 200 |
| GTGCTCTTT | GTGCTCTTT | GTGCTCTTT | GTGCTCTTT | GTGCTCTTT | 250 |
| AGGCTCTTT | AGGCTCTTT | TTCCTTCGCG | TTCCTTCGCG | TTCCTTCGCG | 300 |
| TTCCTTCGCG | GTGCTCTTT | GTGCTCTTT | AGGCTCTTT | AGGCTCTTT | 350 |
| TTCCTTCGCG | GTGCTCTTT | T | | | 371 |

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| ATGCTCTTT | TTCCTTCGCG | TTCCTTCGCG | GTGCTCTTT | GTGCTCTTT | 50 |
| ATGCTCTTT | TTCCTTCGCG | GTGCTCTTT | GTGCTCTTT | GTGCTCTTT | 100 |
| GTGCTCTTT | TTCCTTCGCG | GTGCTCTTT | GTGCTCTTT | GTGCTCTTT | 123 |

Figure 11B

SEQ ID n°12

Figure 12A

SEQ ID n°8

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 50 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 100 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 150 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 200 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 250 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 300 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 350 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 376 |

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 50 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 100 |
| GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | GGCTTGGT | 124 |

Figure 12B

SEQ ID n°13

SEQ ID n°9

Figure 13A

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| CGCGCCCGCG | CGCTGCGCG | TGCGCTGCG | ATCGCGCGCG | CGCGCGCGCG | 51 |
| CTCGCGCGCG | CTCGCGCGCG | CTCGCGCGCG | CTCGCGCGCG | CGCTGCGCG | 100 |
| CGCTGCGCG | CGCTGCGCG | CGCTGCGCG | ATCTGCGCG | CGCGCGCGCG | 150 |
| TTCGCGCGCG | ACCGCGCGCG | TCGCGCGCG | CGCTGCGCG | CGCTGCGCG | 200 |
| TCTGCGCGCG | CGCTGCGCG | CTCGCGCGCG | ATCTGCGCG | CGCGCGCGCG | 250 |
| TTCGCGCGCG | ACCGCGCGCG | CGCTGCGCG | CGCTGCGCG | ACCTGCGCG | 300 |
| CGCTGCGCG | CGCTGCGCG | ACCTGCGCG | TCTGCGCGCG | CGCTGCGCG | 350 |
| CTCGCGCGCG | CGCTGCGCG | CGCTGCGCG | CGCTGCGCG | TCTGCGCGCG | 400 |
| CG | | | | | 402 |

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| QFLGCGCGCG | SGCGCGCGCG | ACCTGCGCG | TGCGCGCGCG | QSDTFFCGCG | 51 |
| SSVSPGVLG | TVGCGCGCG | TVGCGCGCG | FLVSPGCGCG | EGTFFGCGCG | 100 |
| TGSPGCGCG | QFPGVYSGLN | TGCGCGCGCG | LGP | | 150 |

Figure 13B

SEQ ID n°14

Figure 14A

SEQ ID n°10

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | 50 |
| ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | 100 |
| CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | 150 |
| GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | 200 |
| ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | 250 |
| CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | 300 |
| GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | 350 |
| ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | ATTCCTTCCT | 400 |
| CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | CTTCCTTCCT | 450 |
| GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | GTTCCTTCCT | 480 |

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| FLVAVLVGG | FLVAVLVGG | FLVAVLVGG | FLVAVLVGG | FLVAVLVGG | 50 |
| AVVAVLVGG | AVVAVLVGG | AVVAVLVGG | AVVAVLVGG | AVVAVLVGG | 100 |
| YVAVLVGG | YVAVLVGG | YVAVLVGG | YVAVLVGG | YVAVLVGG | 150 |
| FLVAVLVGG | FLVAVLVGG | FLVAVLVGG | FLVAVLVGG | FLVAVLVGG | 160 |

Figure 14B

SEQ ID n°15

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[illegible]

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Figure 15 (contd.)

| | | | | | | |
|-----------|------------|-------------|-------------|------------|------------|-----|
| AA098506 | | | | | | 402 |
| AA242315 | | | | | | 448 |
| W88159 | | | | | | 369 |
| AA734769 | | | | | | 371 |
| W41142 | | | | | | 380 |
| Consensus | AGGCGACTCT | ATGCGGCATCA | GGCGGCTGAT | GGCGCGATCC | GGTCATTCGA | 450 |
| AA098506 | ..... | ..... | ..... | ..... | ..... | 402 |
| AA242315 | ..... | ..... | .....G..A.. | ..... | ..... | 497 |
| W88159 | ..... | ..... | ..... | ..... | ..... | 373 |
| AA734769 | ..... | ..... | ..... | ..... | ..... | 371 |
| W41142 | ..... | ..... | .....G..G.. | ..... | ..... | 412 |
| Consensus | GATGCGTACT | CAACAGCGCC | TTCTGTGAGA | TCAGGACTCC | CGTTGCGATA | 500 |
| AA098506 | ..... | ..... | ..... | ..... | ..... | 402 |
| AA242315 | ..... | ..... | ..... | ..... | ..... | 513 |
| W88159 | ..... | ..... | ..... | ..... | ..... | 373 |
| AA734769 | ..... | ..... | ..... | ..... | ..... | 371 |
| W41142 | ..... | ..... | ..... | ..... | ..... | 482 |
| Consensus | CAGATCCGCA | GGGTACCTCC | CTGAGATATC | TCAGATTTTA | CGATTTCTCT | 550 |
| AA098506 | ..... | ..... | ..... | ..... | ..... | 402 |
| AA242315 | ..... | ..... | ..... | ..... | ..... | 513 |
| W88159 | | | | | | 373 |
| AA734769 | | | | | | 371 |
| W41142 | | | | | | 482 |
| Consensus | CCCCCAATAG | AAGACGGACA | | | | 570 |

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Figure 16

| | | | | | | | | | |
|------------------|------------------|------------|------------|-------|-------|-------|-------|-------|-------|
| SEQ ID n°11 | AA242315 protein | SEQVPPAPGL | WQVREINPFW | QSCAS | | | | | |
| SEQ ID n°13 | W88159 protein | | | | | | | | |
| SEQ ID n°15 | W41142 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| SEQ ID n°14 | AA098506 protein | QPLGGVQGL | SCSHG | QSCAS | ..... | ..... | ..... | ..... | ..... |
| SEQ ID n°12 | AA734769 protein | ALG | ..... | ALSTF | ..... | ..... | ..... | ..... | ..... |
| SEQ ID n°17 | Consensus | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA242315 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| W88159 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| W41142 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA098506 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA734769 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Consensus | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA242315 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| W88159 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| W41142 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA098506 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA734769 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Consensus | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| AA242315 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| W88159 protein | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| W41142 protein | | | | | | | | | |
| AA098506 protein | | | | | | | | | |
| AA734769 protein | | | | | | | | | |
| Consensus | | | | | | | | | |

[illegible]

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Figure 17 (contd.)

SEQ ID n° 18 (contd.)

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|------|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| GGGCTGGG | AGGAGCGT | CTTGCGAG | AAAGAGCA | ACGAAACCA | 2100 |
| AAGAAAGA | AAAGAGTT | CAATATGG | CTTTGCTG | CGAGAGAG | 2150 |
| CGGGCTGG | TATTTAGA | GAGCGGGA | ATTATGCG | AAATGAGG | 2200 |
| CTGTTTTT | CTTCCTGG | TATTTGGT | GGGCTGCA | TGGTCAAG | 2250 |
| CGAGCTGA | ATTGAGAG | CTATTTGA | CGATTTAG | AAATGATT | 2300 |
| GGGTGAGT | TATGAGAG | TGATTTGA | CGAGCTAG | CGTGGGCG | 2350 |
| GAGGAATT | GAATTTGG | AAATTAAG | ATTGCTAG | CTGAAAGG | 2400 |
| CGAGCTTG | AGATTTGG | CGTTGGTG | TGAGGCTG | CGGTTGGG | 2450 |
| CGTGGCTG | TATTTAGT | GGTTGGTG | CTTATTTG | AGGTCGAG | 2500 |
| CGTGGCTG | TGTTAGTG | ATTGTTGA | ATTGTTAG | TTTGTGGT | 2550 |
| TTTATTTT | AAATCTTG | CGAGCTTT | GAATTTAT | ATTTCTTG | 2600 |
| ATTGTTTT | ATTGCTGG | CGTTTCTA | TGTTCTTT | TTTTTTTT | 2650 |
| TTTATTTG | TTTATTTG | GAGTTCTA | GCTGCTTG | ATTGAGAG | 2700 |
| AGTGGGCA | TATTTAGT | GAGTTCTT | TGTTCTTT | AGGTTCTG | 2750 |
| TGTTCTTT | CGTTCTTT | AGTTCTTT | TGAGTCTT | CTGTTCTG | 2800 |
| TGTTCTTT | CGTTCTTT | CGTTCTTT | CGTTCTTT | | 2850 |

Figure 18

21.26

| 3' Intron sequence (donor site) | Exon sequence | 5' Intron sequence (acceptor site) |
|------------------------------------|--|---------------------------------------|
| | MetGly aIGluG ATGGGG...-Exon 1-...TCCAGG | GAGCTGA.... |
|TCCTTAC | LyLeuS InSerA GATTAA...-Exon 2-...ACAGTG | GTAAGCC... |
|TCCTCAG | spThrP InGluA ACACTT...-Exon 3-...AACAGA | GTAAGAA... |
|TCTCTAG | TyThrA TytGln GGACCC...-Exon 4-...TATCAG | GTAAGAA.... |
|TTTTTAC | | |

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Figure 19

22:26

| | | | | | | |
|-------------|---------------|---------------|------------|------------|------------|-----|
| | 10 | 20 | 30 | 40 | 50 | |
| | 123456789 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| SEQ ID n°27 | ATGGGGGGCTG | TGGAGCCCTG | CTGGTGGCTT | CTGTTGCTTC | CTHTGCTGCT | 50 |
| SEQ ID n°28 | M G A L E P S | N C L L F L P | V L L | | | |
| | GACTGTGGAG | GCATTAGTC | CGGTACAGCC | CCAGAGTGAC | ACTTTGCCAA | 100 |
| | T V E G L S P | V Q A L S D | T F P R | | | |
| | GATCGGACTG | TTCCTCCCTG | AGCCCTGGTG | TACTTGCCTG | GATTCTTCTG | 150 |
| | C D C S S V | S P G V L A G | I V L | | | |
| | GGTCACTTGG | TCTTCACTCT | GCTGATTGCC | CTGGCTGTCT | ACTCTCTGGG | 200 |
| | G D L V L T L | L L A L A V Y | S L G | | | |
| | CCGCCTGGTG | TCCGACGCTG | AACAGAGGAC | CCGGAACAA | CACATTGCTG | 250 |
| | R L V S R G Q | E R T R E Q | H I A E | | | |
| | AGACTGAGTT | GCCTTATCAG | GACCTTCAGG | CTCAGAGACA | TGAAGTATAC | 300 |
| | T E S P Y Q | E L C G C R H | E V Y | | | |
| | AGTCACTCTA | ACACACAGAG | GCATATTTAC | AGATGAGCCC | ACTCTATGCC | 350 |
| | S D L N T Q R | Q Y Y R L A H | S M P | | | |
| | CATCAGCCGC | CTATGCCCCG | GATCCGCTCA | TTCAGATGCG | CTACTCAACA | 400 |
| | I S G L M P G | E G H S R C | L L N K | | | |
| | AGCCCTCTCT | CAGATCAGGA | CTCCGCTTGG | AATACAGATC | CACGGGTTAC | 450 |
| | P S L R S G | L P L E Y R S | T G Y | | | |
| | | | | | | 452 |

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Figure 20

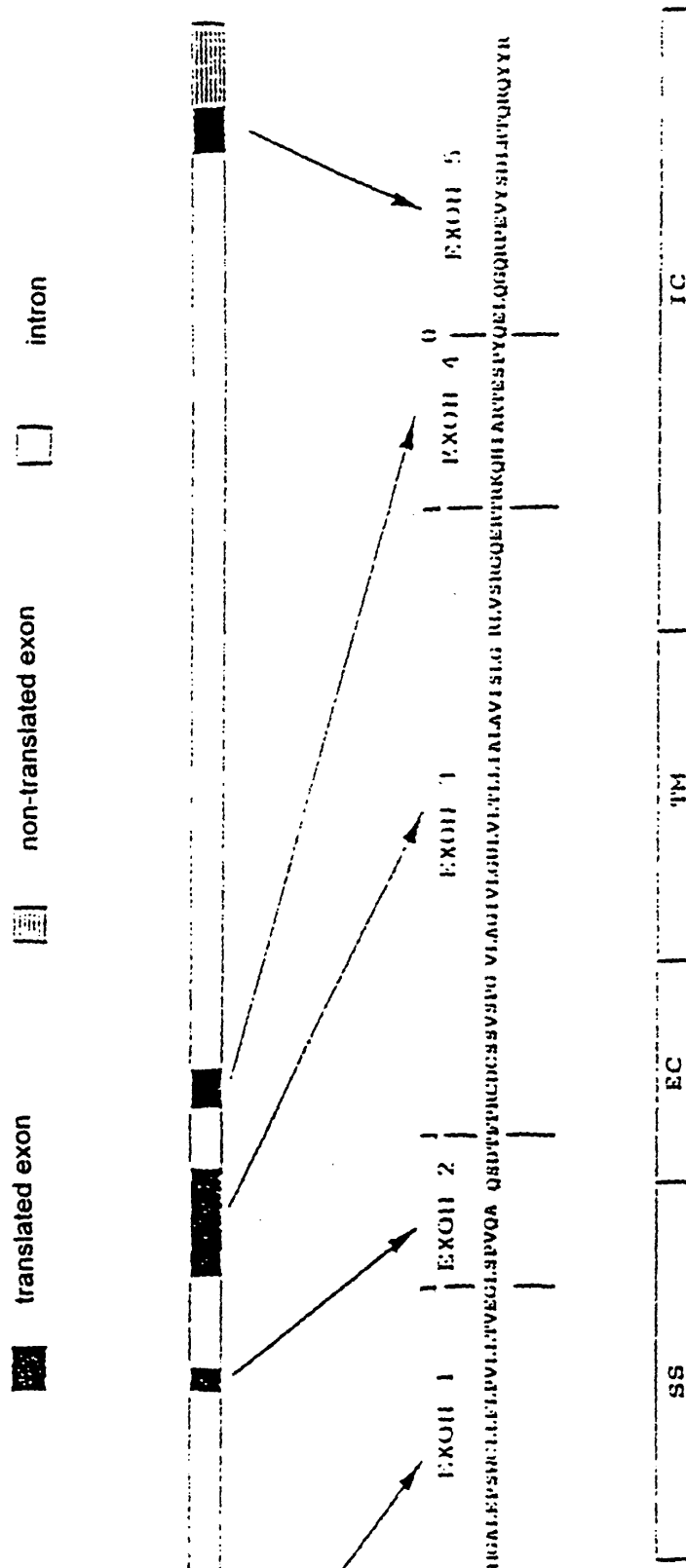


Figure 21

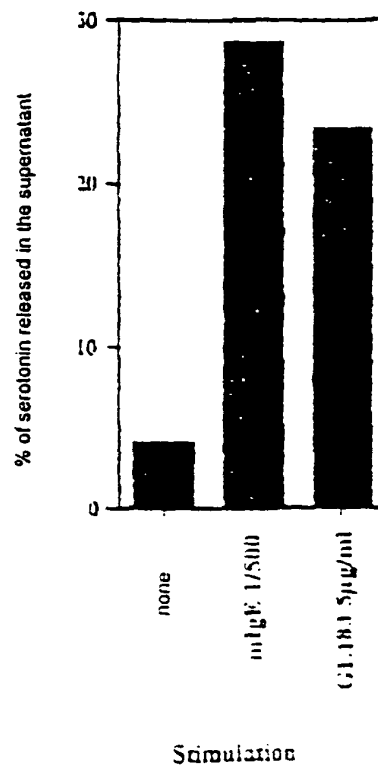
SEQ ID n°31

| 10 | 20 | 30 | 40 | 50 | |
|------------|------------|------------|------------|------------|-----|
| 1234567890 | 1234567890 | 1234567890 | 1234567890 | 1234567890 | |
| GGGTTGGGTT | TGGTGTGTGT | GGGTTTTC | ATGCTAGGTC | GTGGTGGGTT | 51 |
| TGTGGGGGGG | AGTTGATCC | TGTGCTGGG | TGTGCTGTCT | GGGTTGGGTT | 100 |
| GGGTTGGGTT | GGGTTGGGTT | TGTGCTGGG | GGGTTGGGTT | AGTGGGTT | 150 |
| GGGTTGGGTT | AGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | 200 |
| AGGTTGGGTT | GGGTTGGGTT | AGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | 250 |
| GGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | 300 |
| TGTGCTGGG | AGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | GGGTTGGGTT | 350 |
| AGGTTGGGTT | GGGTTGGGTT | AGGTTGGGTT | GGGTTGGGTT | AGGTTGGGTT | 400 |
| AGGTTGGGTT | TGTGCTGGG | GGGTTGGGTT | | | 451 |

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Figure 22

**Release of serotonin induced by the p50/KARAP
complex reconstituted in RBL-2H3 cells**



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Figure 23

| | 11 | 12 | 13 | 14 | | |
|-------|-----|-----|-----|------|-------|--------------|
| | 1:1 | 1:2 | 1:3 | 1:4 | 1:5 | |
| | 404 | 140 | 134 | 2902 | > 65 | human KARAP |
| (top) | 440 | 144 | 130 | 1666 | > 102 | murine KARAP |